



LCD Color TV

Operating Instructions

BRAVIA

KL V-23S200A KL V-26S200A
KL V-32S200A KL V-40S200A

Owner's Record

The model and serial numbers are located at the rear of the TV. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____

Serial No. _____

For Your Convenience**Please contact Sony directly if you:**

- Have questions on the use of your television after reading your manual
- Experience difficulty operating your television

Contact Sony Customer Support at:

<http://www.sony.com/tvsupport>

or to speak with a support representative:

Canada

1-877-899-SONY (7669)

8:00 AM - 6:00 PM (Eastern)

8:00 AM - 5:00 PM (Western)

Sony will work to resolve your questions more quickly than your retailer or place of purchase.

Please Do Not Return the Product to the Store

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

CAUTION

To prevent electric shock, do not use this polarized AC plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

For Customers in Canada

This Class B digital apparatus complies with Canadian ICES-003.

Safety

- ☐ Operate the TV only on 120-240 V AC.
- ☐ Use the AC power cord specified by Sony and suitable for the voltage where you use it.
- ☐ The plug is designed, for safety purposes, to fit into the wall outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- ☐ If any liquid or solid object should fall inside the cabinet, unplug the TV immediately and have it checked by qualified service personnel before operating it further.
- ☐ If you will not be using the TV for several days, disconnect the power by pulling the plug itself. Never pull on the cord.
- ☐ For details concerning safety precautions, see “Important Safety Instructions” on page 4.

Installing

- ☐ The TV should be installed near an easily accessible power outlet.
- ☐ To prevent internal heat buildup, do not block the ventilation openings.
- ☐ Do not install the TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- ☐ Avoid operating the TV at temperatures below 41°F (5°C).
- ☐ If the TV is transported directly from a cold to a warm location, or if the room temperature changes suddenly, the picture may be blurred or show poor color due to moisture condensation. In this case, please wait a few hours to let the moisture evaporate before turning on the TV.
- ☐ To obtain the best picture, do not expose the screen to direct illumination or direct sunlight. It is recommended to use spot lighting directed down from the ceiling or to cover the windows that face the screen with opaque drapery. It is desirable to install the TV in a room where the floor and walls are not of a reflective material.

CAUTION

Use the following Sony appliance(s) only with the following WALL-MOUNT BRACKET.

Sony Appliance Model No.		
	KLV-23S200A KLV-26S200A KLV-32S200A	KLV-40S200A
Sony Wall-Mount Bracket Model No.	SU-WL31	SU-PW2 SU-WL51

Use with other WALL-MOUNT BRACKET may cause instability and possibly result in injury (see page 39).

To Customers

Sufficient expertise is required for installing the specified product. Be sure to subcontract the installation to Sony dealers or licensed contractors and pay adequate attention to safety during the installation.

Trademark Information

TruSurround XT, SRS and (●) symbol are trademarks of SRS Labs, Inc. TruSurround XT technology is incorporated under license from SRS Labs, Inc.

Manufactured under license from BBE Sound, Inc.

Licensed by BBE Sound, Inc. under one or more of the following US patents: 5510752, 5736897. BBE and BBE symbol are registered trademarks of BBE Sound, Inc.

Macintosh is a trademark licensed to Apple Computer, Inc., registered in the U.S.A and other countries.

“BRAVIA” and BRAVIA are trademarks of Sony Corporation.

This TV incorporates High-Definition Multimedia Interface (HDMI™) technology. HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.



Important Safety Instructions

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

USE

For the TV with a three-wire grounding type AC power cord plug (Class 1 unit)

This TV must be connected to an AC power outlet with a protective earthing connection.



AC power cord

If you damage the AC power cord, it may result in a fire or an electric shock. If the AC power cord is damaged, stop using it and ask your dealer or Sony service center to exchange it.

- ☐ Do not place the TV where the power cord is subject to wear or abuse.
- ☐ Do not pinch, bend, or twist the cord excessively. The core lines may be bared and cut, and cause a short-circuit, resulting in a fire or an electric shock.
- ☐ Do not convert or damage the power cord.
- ☐ Do not allow anything to rest on or roll over the power cord.
- ☐ Do not pull the power cord.
- ☐ Do not move the TV with the power cord plugged in.
- ☐ Keep the power cord away from heat sources.
- ☐ Be sure to grasp the plug when disconnecting the power cord.



Wall outlet

Do not use a poor fitting outlet. Insert the plug fully into the outlet. If it is loose, it may cause arcing and result in a fire. Contact your electrician to have the outlet changed.



Wiring

For your safety, unplug the AC power cord when wiring cables.

Cable wiring

Take care not to catch your feet on the cables. It may damage the TV.

Electric shock

Do not touch the AC power cord or the TV with a wet hand. If you plug/unplug the AC power cord from the TV with a wet hand, it may cause electric shock.



Lightning

For added protection for this TV during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the TV due to lightning and power line surges.

ANTENNA

Outdoor Antenna Grounding

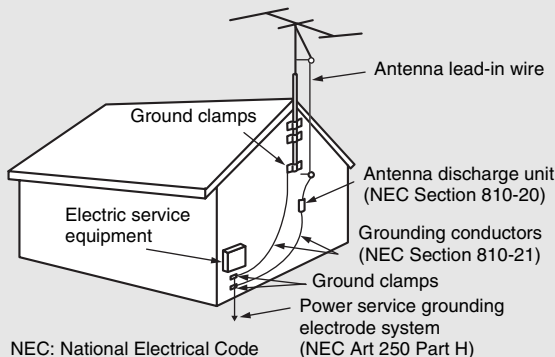
If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits.

WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Section 810 of the National Electrical Code (NEC) in the USA and Section 54 of the Canadian Electrical Code in Canada provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Antenna Grounding According to the National Electrical Code, ANSI/NFPA 70



BATTERIES

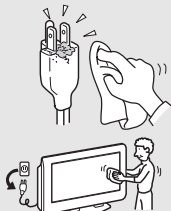
- ☐ Do not dispose of batteries in a fire.
- ☐ Do not short circuit, disassemble or overheat the batteries.
- ☐ Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

Disposal of used batteries

To preserve our environment, dispose of used batteries according to your local laws or regulations.

CLEANING

- ☐ Clean the AC power plug regularly. If the plug is covered with dust and it picks up moisture, its insulation may deteriorate and result in a fire. Unplug the AC power plug and clean it regularly.
- ☐ Unplug the AC power cord when cleaning this TV. If not, it may result in electric shock.
- ☐ Clean the cabinet of the TV with a dry soft cloth. To remove dust from the screen, wipe it gently with a soft cloth. Stubborn stains may be removed with a cloth slightly dampened with a solution of mild soap and warm water. Never use strong solvents such as thinner or benzine for cleaning.
- ☐ If using a chemically pretreated cloth, please follow the instruction provided on the package.



MAGNETIC INFLUENCE

This TV contains a strong magnet in the speaker unit that generates a magnetic field. Keep any items susceptible to magnetic fields away from the speaker.

SOUND

If a snapping or popping sound from the TV is continuous or frequent while the TV is operating, unplug the TV and consult your dealer or service technician. It is normal for some TVs to make occasional snapping or popping sounds, particularly when being turned on or off.

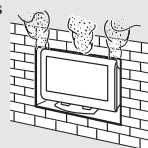


VENTILATION

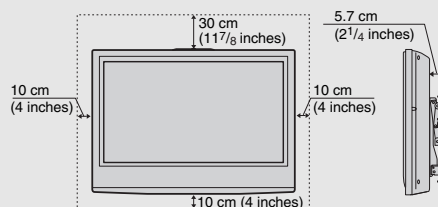
The slots and openings in the TV are provided for necessary ventilation. To ensure reliable operation of the TV, and to protect it from overheating, these slots and openings must never be blocked or covered.

Unless proper ventilation is provided, the TV may gather dust and get dirty. For proper ventilation, observe the following:

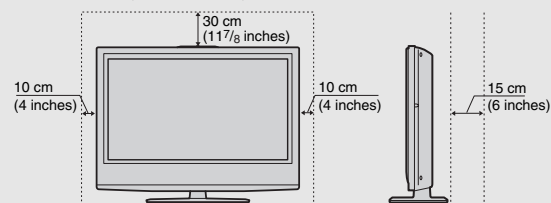
- ☐ Do not install the TV face up or down or sideways.
- ☐ Do not install the TV turned over or upside down.
- ☐ Never cover the slots and openings with a cloth or other materials.
- ☐ Never block the slots and openings by placing the TV on a bed, sofa, rug or other similar surface.
- ☐ Never place the TV in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.



When installing the TV on a wall, allow this much space:

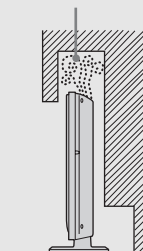


When installing the TV using a stand, allow this much space:

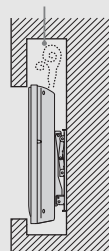


Never install the TV as follows:

Air circulation is blocked.



Air circulation is blocked.



(Continued)

Objects and ventilation holes

Never push objects of any kind into the TV through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or an electric shock. Never spill liquid of any kind on the TV.

Do not place any objects on the TV.

The TV shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the TV.



MOISTURE

Moisture and flammable objects

- Do not use power-line operated sets near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc. It may result in a fire or an electric shock.



- Do not let this TV get wet. Never spill liquid of any kind on the TV. If any liquid or solid object does fall through, do not operate the TV. It may result in electric shock or damage to the TV. Have it checked immediately by qualified personnel.



- To prevent fire, keep flammable objects or open flame (e.g. candles) away from the TV.

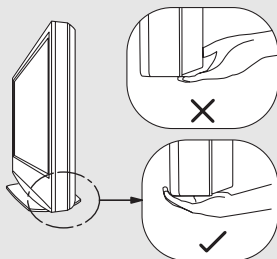
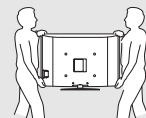
CARRYING THE TV

Carry the TV in the specified manner

Carrying the TV requires at least two people.

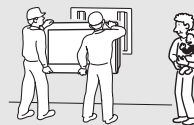
If you carry the TV in a manner other than that specified and without the specified number of persons, it may drop and serious injury may result.

- Carry the TV with the specified number of people.
- Carry the TV holding the upper and bottom frames of the TV as illustrated.
- Hold the TV securely when carrying it. As the glass surface of the TV has a special coating, be careful to avoid touching the glass surface as much as possible.
- When transporting, do not subject the TV to shocks or vibration, or excessive force.
- When lifting or moving the TV, be sure to hold the panel firmly as illustrated. Place your palm directly under the panel, from the rear of the TV.



INSTALLATION

When installing or removing the TV, using the Wall-Mount Bracket, be sure to use qualified contractors. Wall mount installation requires the use of a Wall-Mount Bracket. If not properly secured during installation or removal from the Wall-Mount Bracket, the TV may fall and cause serious injury. Please use a qualified contractor when installing or removing.



Optional wall mount

Observe the following when installing the TV using a wall-mount bracket. If the TV is not secured properly, it may fall and cause injury.



- Be sure to follow the operating instructions supplied with the wall-mount bracket when installing the TV.
- Be sure to attach the brackets supplied with the wall-mount bracket.
- Do not hang the TV from the ceiling. It may fall and cause serious injury.

Placement for viewing

It is recommended to watch the TV at a distance of 3 - 7 times that of the screen height, and in moderate brightness. Watching the TV for too long or in a dark room may cause eye fatigue.

Outdoor use

Do not install this TV outdoors. If the TV is exposed to rain, it may result in a fire or an electric shock. If the TV is exposed to direct sunlight, the TV may heat up and cause damage to the TV.



Vehicle

Do not install this TV in a vehicle.

Bumping of the vehicle may cause the TV to fall down and cause injury.



Ship and vessel

Do not install this TV in a ship or vessel. If the TV is exposed to seawater, it may cause a fire or damage the TV.



Corrosion

If you use this TV near the seashore, salt may corrode metal parts of the TV and cause internal damage or fire.

It may also shorten the life of the TV.

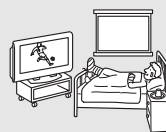
Oils

Do not install this TV in restaurants where oily vapors occur. Dust absorbing oil may enter and damage the TV.

Medical institution

Do not place this TV in a place where medical equipment is in use.

It may cause a malfunction of medical instruments.



Preventing the TV from toppling over

Take measures to prevent the TV from toppling over and causing injury. To prevent the TV from toppling over, secure the TV to a wall or pillar.

Installing on a level surface

If you install the TV on an inclined surface, the TV may fall or drop and cause injury or damage.



Placing on a stable surface

If you place the TV on an unstable surface, the TV may fall and cause injury or damage.



Fall

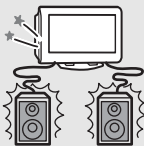
Do not hang anything on the TV.

The TV may fall from the stand or wall-mount, causing damage or serious injury.



Attachments

Do not use attachments not recommended by the manufacturer, as they may cause hazards.



VOLUME ADJUSTMENT

- ☐ Adjust the volume so as not to trouble your neighbors. Sound carries very easily at night. Therefore, closing the windows or using headphones is suggested.
- ☐ When using headphones, adjust the volume so as to avoid excessive levels, as hearing damage may result.

LCD SCREEN

- ☐ Although the LCD screen is made with high-precision technology and has effective pixels of 99.99% or more, black dots or bright points of light (red, blue, or green) may appear constantly on the LCD screen. This is a structural property of the LCD panel and is not a malfunction.
- ☐ Do not expose the LCD screen surface to direct sun light. Doing so may damage the LCD panel.
- ☐ Do not push or scratch the LCD screen, or place objects on top of the TV. The image may be uneven or the LCD panel may be damaged.
- ☐ If the TV is used in a cold place, a smear may occur in the picture or the picture may become dark. This does not indicate a failure. These phenomenon improve as the temperature rises.
- ☐ Ghosting may occur when still pictures are displayed continuously. It should disappear after a few moments.
- ☐ The screen and cabinet get warm when the TV is in use. This is not a malfunction.
- ☐ Avoid spraying insect repellent with volatile material on the screen.
- ☐ Avoid prolonged contact with rubber or plastic made material.

Broken pieces

Do not throw anything at the TV.

The screen glass may break by the impact and cause serious injury.

Handling of broken glass and liquid crystal leakage

If the LCD panel gets damaged, crystalline liquid leakage may occur, or scattered broken glass may result. Do not touch broken glass or crystalline liquid (which is toxic), with bare hands as cuts or poisoning/skin irritation may occur. Also, do not let glass fragments or leaked crystalline liquid get into your eyes or mouth. Should either contact your eyes or mouth, rinse the contacted area thoroughly with water and consult your doctor.

SERVICING

Damage requiring service

If the surface of the TV cracks, do not touch the TV until you unplug the AC power cord.

Otherwise electric shock may result.

Servicing

Do not attempt to service the TV yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



Replacement parts

When replacement parts are required, be sure the service technician certifies in writing that he/she has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.

Unauthorized substitutions may result in a fire, an electric shock or other hazards.



Safety check

Upon completion of any service or repairs to the TV, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the TV is in safe operating condition, and to so certify.



Should the TV not be repairable, ask a qualified service technician to dispose of the TV.

DISPOSAL OF THE TV

- ☐ Do not dispose of the TV with general household waste.
- ☐ The LCD contains a small amount of liquid crystal. The fluorescent tube used in this display also contains mercury. Follow your local ordinances and regulations for disposal.

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Welcome to the World of BRAVIA™

Thank you for purchasing this Sony LCD Color Television. This manual is for model KLV-23S200A, KVL-26S200A, KLV-32S200A and KLV-40S200A. The packing box contains accessories that are listed on page 42.

For optimum picture performance, your new BRAVIA TV is capable of receiving HDTV content from a cable or satellite box via the video inputs (HDMI and YPBPR component video; see page 15).

Connecting the TV

To display clear, crisp pictures, your TV must be connected properly. To properly connect your TV, follow the basic connections provided in this section. Advanced connection examples are provided in the separate Quick Setup Guide accompanied with your TV. The Quick Setup Guide provides a variety of optional equipment connection diagrams.

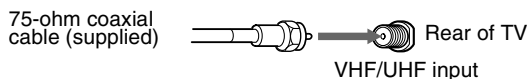
It is strongly recommended that you connect the antenna/cable input using the supplied 75-ohm coaxial cable to receive optimum picture quality. A 300-ohm twin lead cable can be easily affected by radio frequency, resulting in signal deterioration.

When the antenna/cable connection is done, you must perform an Initial Setup so your TV will create a list of channels you can view (see page 18). After you can receive and view programming you should select the proper Wide Mode setting to display the picture in your preferred aspect ratio. See “Changing the Wide Screen Mode” on pages 20 and 28.

Cable System and/or VHF/UHF Antenna System

Connecting a cable system or an external VHF/UHF antenna to the VHF/UHF input will allow you to enjoy standard definition programming.

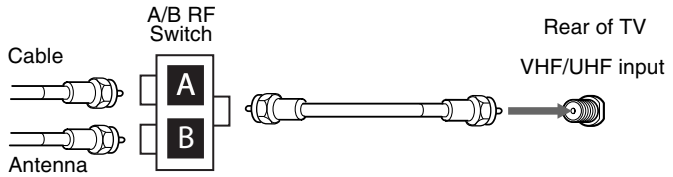
Cable or VHF/UHF (or VHF only)



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Cable and VHF/UHF (or VHF only)

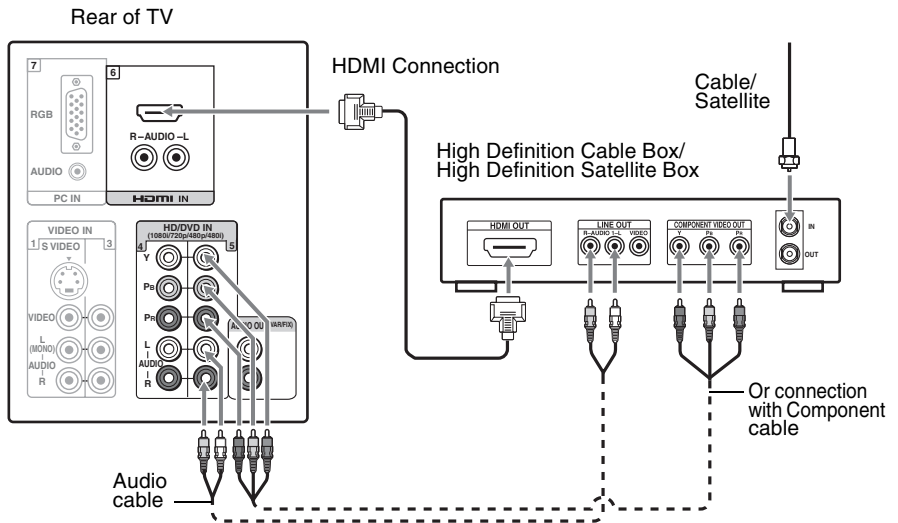
If you want to watch both cable and antenna (over-the-air) programming, you will need to use an optional A-B RF Switch (not supplied) to switch between the cable and over-the air antenna programming, as shown.



Be sure to set Cable setting option to Cable On or Cable Off in Setup settings for the type of input signal you choose (see page 33).

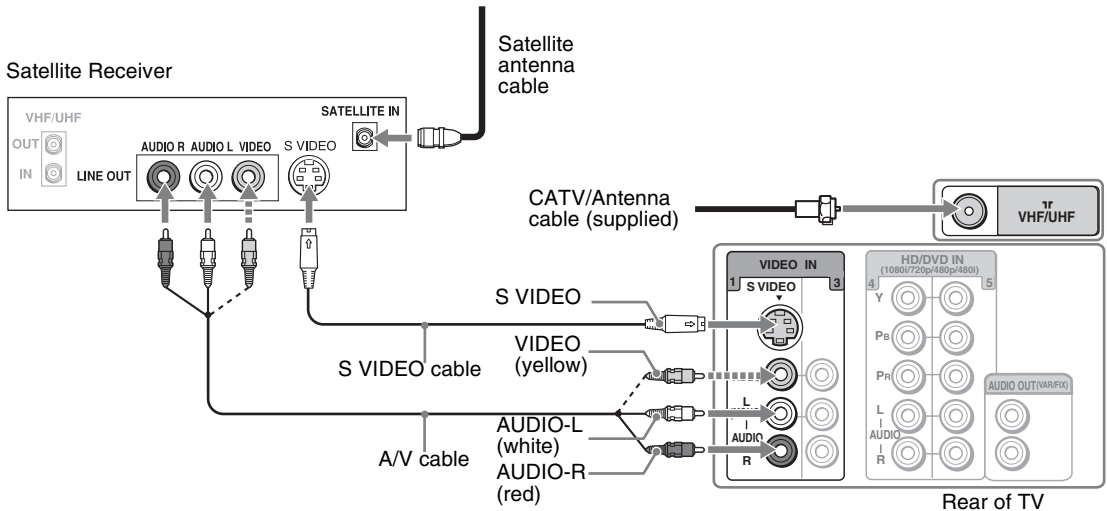
HD Cable Box/ HD Satellite Box

You can also enjoy high definition programming by subscribing to high definition cable service or high definition satellite service. Make sure you connect these components to your TV via the HDMI or component video (with audio) input on the back of your TV.



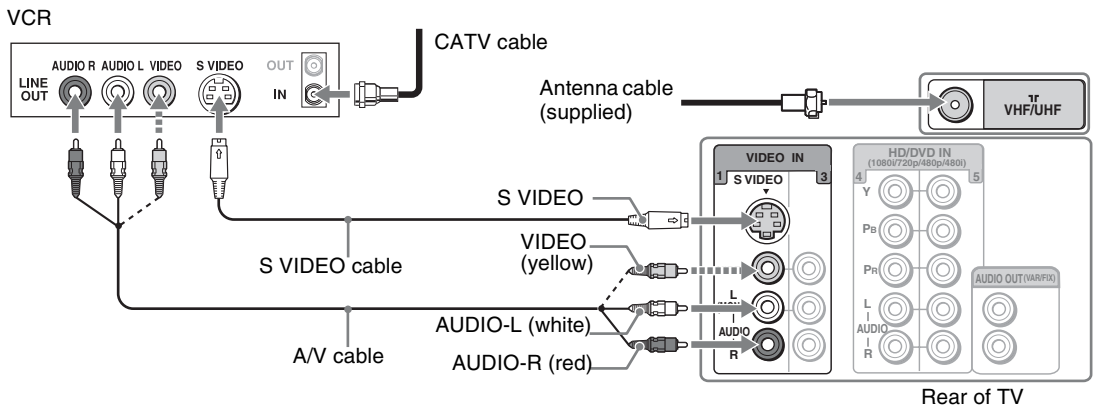
Component video (YPbPr) or HDMI connection is necessary to view 480i, 480p, 720p and 1080i formats. Note that this TV displays all format types of picture in its native resolution of 1,366 dots × 768 lines.

Satellite Receiver and Cable/Antenna



- ✎ If your satellite receiver is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.
- ✎ Run the Initial Setup program, as described in "Setting Up the Channel List" on page 18 after completing your connections.

VCR, Cable and Antenna

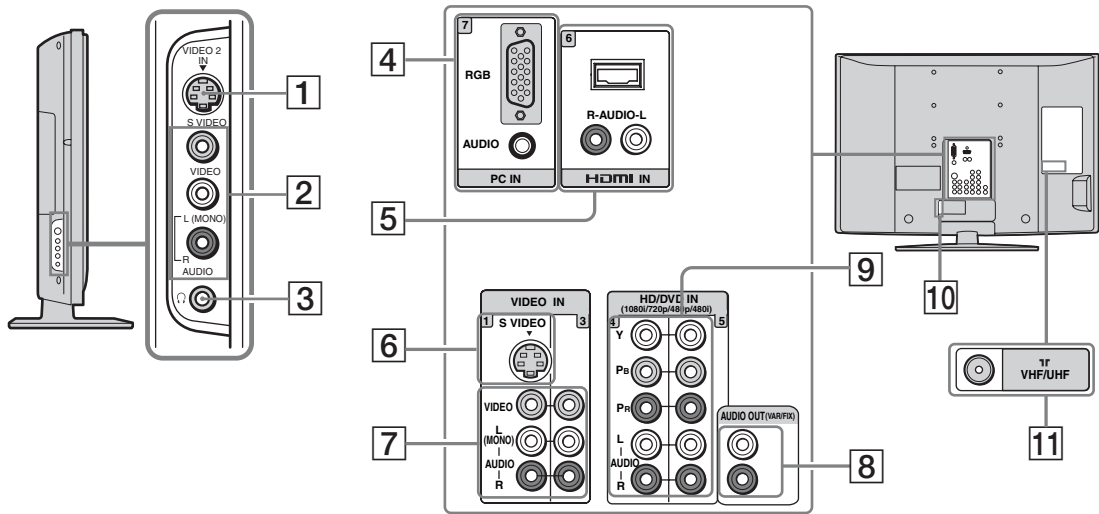


- ✎ If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.
- ✎ Run the Initial Setup program, as described in "Setting Up the Channel List" on page 18 after completing your connections.

When Connecting to Optional Equipment

Left side

Rear



Item	Description
1 VIDEO 2 IN S VIDEO	Connects to the S VIDEO output jack on your camcorder or other video equipment that has S VIDEO. Provides better picture quality than composite video ([2]). (See Auto YC on page 32.)
2 VIDEO 2 IN VIDEO/ L (MONO)- R AUDIO	Connect to the composite video and audio output jacks on your camcorder or other video equipment such as video game equipment. If you have mono equipment, connect its audio output jack to the TV's L (MONO) audio input jack.
3 Headphones jack	Connects to your headphones. If your headphones do not match the jack, use a suitable plug adapter (not supplied).
4 PC IN 7 (RGB/AUDIO)	Connect to a personal computer's video output connector using HD15-HD15 cable (analog RGB, supplied). See "PC Input Signal Reference Chart" on page 41 for the signals that can be displayed. For some Apple Macintosh computers, it may be necessary to use an adapter (not supplied). If this is the case, connect the adapter to the computer before connecting the HD15-HD15 cable. If the picture is noisy, flickering or not clear, adjust the Phase and Pitch of the PC Settings see page 35.

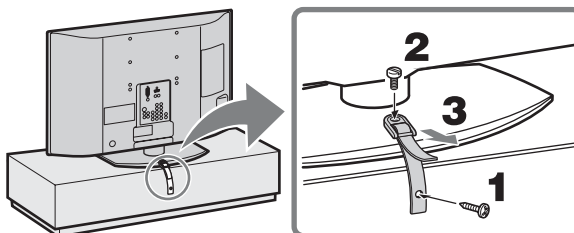
Item	Description
[5] HDMI IN 6 HDMI/ R-AUDIO-L	HDMI (High-Definition Multimedia Interface) provides an uncompressed, all-digital audio/video interface between this TV and any HDMI-equipped audio/video equipment, such as a set-top box, DVD player, and A/V receiver. HDMI supports enhanced, or high-definition video, plus digital audio. If the equipment has a DVI connector and not an HDMI connector, connect the DVI connector to the HDMI IN (with HDMI-to-DVI cable or adapter) connector, and connect the audio jacks to the AUDIO IN(L/R) jacks of HDMI IN. (DVI connector is for video signals only.)  HDMI-to-DVI cable  HDMI-to-DVI adapter  Audio cable
 Do not connect a PC to the TV's HDMI input. Use the PC IN (RGB IN) input instead when connecting a PC.	
[6] VIDEO IN 1 S VIDEO	Connects to the S VIDEO output jack of your VCR or other video equipment that has S VIDEO. S VIDEO provides better picture quality than composite video ([7]).
[7] VIDEO IN 1/3 VIDEO/ L(MONO)- AUDIO-R	Connect to the composite video and audio output jacks on your A/V equipment such as a VCR or other video equipment. A third composite video and audio (VIDEO 2) input is located on the left side panel of the TV.
[8] AUDIO OUT (VAR/FIX)	Connect to the left and right audio input jacks of your audio or video equipment. You can use these outputs to listen to your TV's audio through your stereo system.
[9] HD/DVD IN 4/5 (1080i/720p/ 480p/480i)/ L-AUDIO-R	Connect to your DVD player's or digital set-top box's component video (YPbPr) and audio (L/R) jacks. Component video provides better picture quality than the S VIDEO ([6]) or the composite video ([7]) connections.
[10] AC IN	Connects the supplied AC power cord.
[11] VHF/UHF	RF input that connects to your Cable or VHF/UHF antenna.

 Component video (YPbPr) or HDMI connection is necessary to view 480i, 480p, 720p, and 1080i formats. Note that this TV displays all format types of picture in its native resolution of 1,366 dots × 768 lines.

Installing the TV

Preventing the TV from Toppling Over

Attaching the Support Belt



- 1** Screw the support belt (supplied) to the TV stand with a wood screw (supplied).
- 2** Attach the support belt to the stand with the securing screw (supplied) using a coin, etc.
- 3** Adjust the length by pulling the support belt towards you while holding the TV stand.



Be sure to take measures to prevent the TV from toppling over and causing injury.



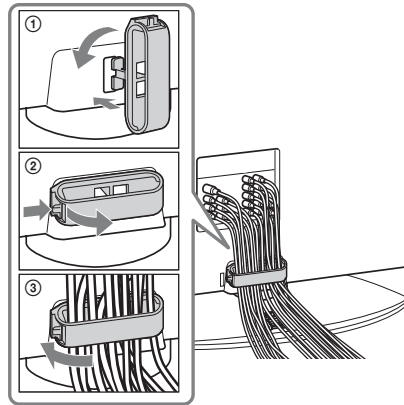
The supplied wood screw may not be used depending on the type of TV stand. In this case, or when the securing strength is not enough, prepare commercial screws to fit to the TV stand. Use commercial screws of 3 to 4 mm (1/8 to 3/16 inches) diameter. Consult your dealer about the types of screw.

When Installing on a Wall

Be sure to use the specified Wall-Mount Bracket (see page 3) when installing the TV on a wall. Refer to the Instruction Guide supplied with the Wall-Mount Bracket (sold separately). (See page 39 or 40 for Table-Top Stand removal.)

Bundling the Connecting Cables

You can bundle the connecting cables as illustrated below.

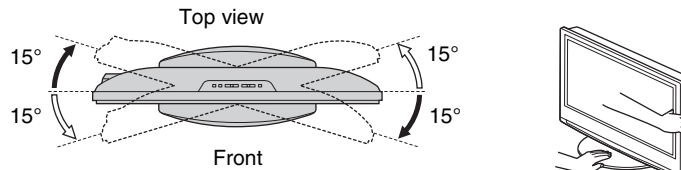


 Do not bundle the AC power cord with other connecting cables.

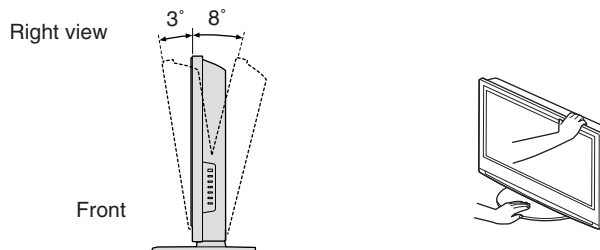
Adjusting the Viewing Angle of the TV

This TV can be adjusted within the angles shown below.

Adjust the angle left and right (swivel for all models except for KLV-23S200A)



Adjust the angle back and forth (tilt for KLV-23S200A only)



 When adjusting the angle or tilt, hold the stand with one hand to avoid slipping or tipping the TV.

Setting Up the Channel List - Initial Setup

After you finish connecting your TV, you need to run Initial Setup, which automatically sets up available channels. The Initial Setup screen appears when you turn on your TV for the first time. If you do not want to set up the channels at this time, you can do it later by selecting the **Auto Program** option in the **Channel Setup** settings (see page 36).

- 1 Press  to turn on the TV.
The Initial Setup screen appears.



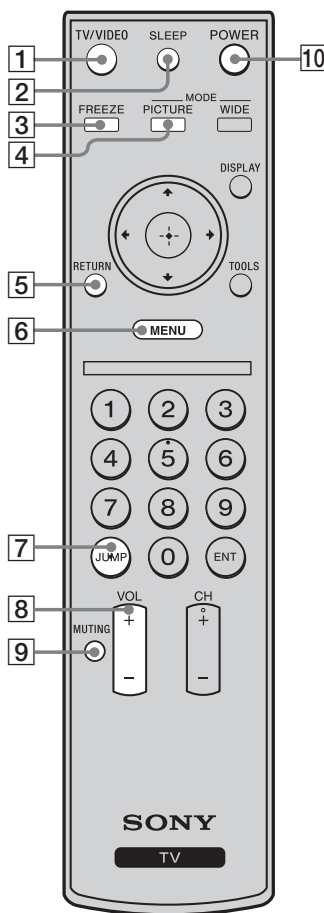
- 2 Press  to highlight the on-screen display language. Then press .
The message “First please connect cable/antenna. Do you want to start Auto Program?” appears.
- 3 Press  to highlight “OK” then press .

To run Auto Program again at a later time

- Use the Auto Program feature as described on page 36.

Basic Operations

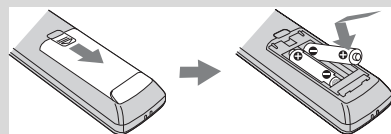
Remote Control



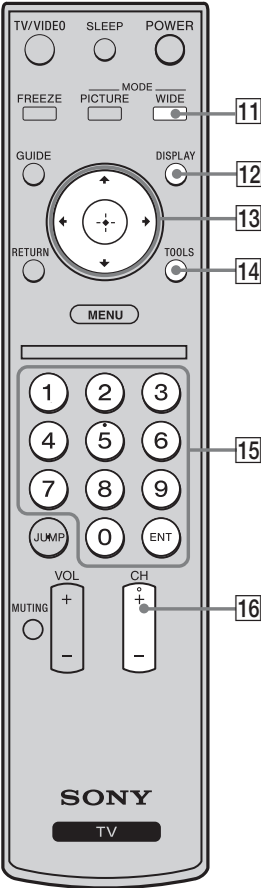
💡 The 5 button and CH+ button have a tactile dot. Use them as a reference when operating the TV.

Button	Description
1 TV/VIDEO	Press repeatedly to cycle through the video inputs. See page 31 on setting up the video input labels, including the Skip function.
2 SLEEP	Press repeatedly until the TV displays the time in minutes (Off, 15, 30, 45, 60, 90 or 120) that you want the TV to remain on before shutting off. To cancel Sleep Timer, press SLEEP repeatedly until Sleep Off appears.
3 FREEZE	Press once to display a frozen image of the current program in a window. Press again to show only the frozen image. Press again to return to the program.  Current program — Frozen picture Move the sub screen with $\uparrow \downarrow \leftarrow \rightarrow$.
4 PICTURE	Press repeatedly to cycle through the available picture modes: Vivid, Standard, Custom. The picture modes can be also accessed in the Picture settings. For details, see “Using the Picture Settings” on page 25. With Freeze function active, some functions are unavailable, such as MENU.
5 RETURN	Press to go back to the previous screen when displaying MENU items and settings.
6 MENU	Press to display the MENU with TV functions and settings. See “Overview of MENU” on page 23.
7 JUMP	Press to jump back and forth between two channels. The TV alternates between the current channel and the last channel that was selected.
8 VOL +/-	Press to adjust the volume.
9 MUTE	Press to mute the sound. Press again or press VOL + to restore the sound.
10 POWER	Press to turn on and off the TV.

Insert two size AA batteries (supplied) by matching the + and - on the batteries to the diagram inside the remote control's battery compartment.

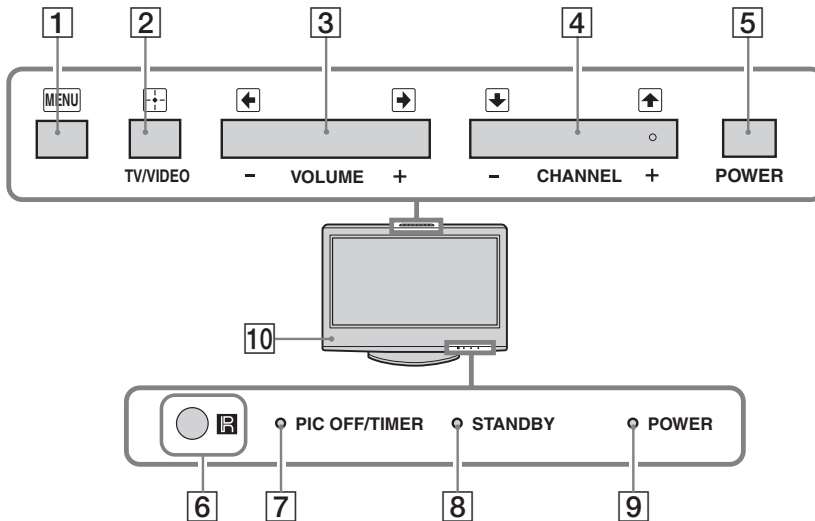


(Continued)



Button	Description														
11 WIDE	Press repeatedly to step through the Wide Mode settings: Wide Zoom, Normal, Full, Zoom. The Wide Mode settings can be also accessed in the Screen settings. See page 28. Changing the Wide Screen Mode <table><tr><td>4:3 Original source Standard definition source</td><td>16:9 Original source High definition source</td></tr><tr><td></td><td></td></tr><tr><td>↓</td><td>↓</td></tr><tr><td>Wide Zoom </td><td>Wide Zoom </td></tr><tr><td>Normal </td><td>Normal This mode is not available</td></tr><tr><td>Full </td><td>Full </td></tr><tr><td>Zoom </td><td>Zoom </td></tr></table> When the TV receives a 720p or 1080i signal, Normal cannot be selected.	4:3 Original source Standard definition source	16:9 Original source High definition source			↓	↓	Wide Zoom 	Wide Zoom 	Normal 	Normal This mode is not available	Full 	Full 	Zoom 	Zoom
4:3 Original source Standard definition source	16:9 Original source High definition source														
↓	↓														
Wide Zoom 	Wide Zoom 														
Normal 	Normal This mode is not available														
Full 	Full 														
Zoom 	Zoom 														
12 DISPLAY	Press once to display the current channel number, channel label, time and Wide Mode settings. The OSD (on screen display) will turn off after a few seconds or press again to immediately turn off the display.														
13	Press to move the on-screen cursor. Press to select/confirm an item.														
14 TOOLS	Press to display the Tools Menu that is associated with your current input: TV or External Inputs. (See page 25, 27, 30, 35 and 36.)														
15 0 - 9 ENT	Press 0 - 9 to select a channel; the channel changes after two seconds. Press ENT to change channels immediately.														
16 CH +/-	Press to scan through channels. To scan quickly through channels, press and hold down either +/-.														

TV Controls



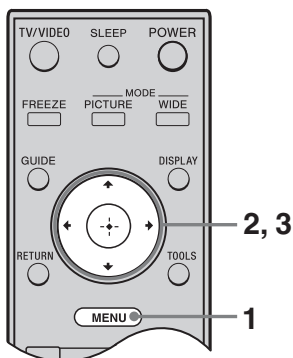
Item	Description
1 MENU	Press to display MENU with TV functions and settings (see “Overview of MENU” on page 23).
2 TV/VIDEO	Press to cycle through the video inputs. If you set a certain input to Skip in Label Video Inputs , then the input will not appear. In the MENU screen, this button serves as confirming the selection or setting.
3 - VOLUME +	Press to adjust the volume. In the MENU screen, these buttons serve as left/right buttons.
4 - CHANNEL +	Press to scan through channels. To scan quickly through channels, press and hold down either -/+ . In the MENU screen, these buttons serve as up/down buttons.
5 POWER	Press to turn on and off the TV.
6 (IR) Infrared Receiver/Light Sensor	Receives IR signals from the remote control. Senses room light level and adjusts the screen brightness accordingly (see page 32 for details). Do not put anything near the sensor, as its function may be affected.
7 PIC OFF/TIMER LED	Lights up in green when the Picture Off feature is activated. Lights up in orange when the timer is set. When the timer is set, this LED will remain lit even if the TV is turned off. For details, see page 32.
8 STANDBY LED	Lights up in red when your TV is in PC power saving mode. If the LED blinks in red continuously, this may indicate the TV needs servicing (see Sony contact information on page 2).
9 POWER LED	Lights up in green when the TV is turned on.
10 Speaker	Outputs audio signal.

- The **CHANNEL +** button has a tactile dot. Use it as a reference when operating the TV.
- Make sure that the TV is turned off before unplugging the power cord. Unplugging the power cord while the TV is turned on may cause the **Power LED** to remain lit for up to 20 seconds or may cause the TV to malfunction.

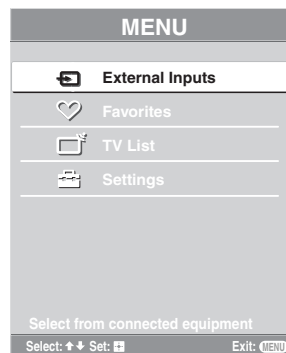
Using the Menus

Overview of MENU

MENU provides one button access for controlling your TV. It enables you to perform a variety of tasks intuitively with a control panel on the screen rather than a variety of remote control button presses. When you press the MENU button, you can easily perform basic TV functions such as: switching between external inputs, viewing your favorite stations and changing or customizing your TV settings.



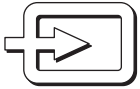
- 1 Press MENU on the remote.
MENU control panel appears.
- 2 Press $\uparrow/\downarrow$ to highlight the item.
- 3 Press $\odot$ to select an option.
Press MENU to exit.



(Continued)

MENU

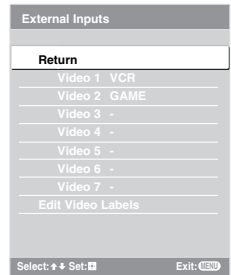
Allows you to



External Inputs

The **External Inputs** feature lets you select the external inputs connected to your TV. You can also assign a label using **Label Video Inputs** in the **Setup** settings. (see page 31)

- 1 Highlight **External Inputs** on the **MENU** control panel and press **+**.
- 2 Press **▲/▼** to highlight the desired external input and press **+**.

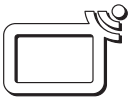
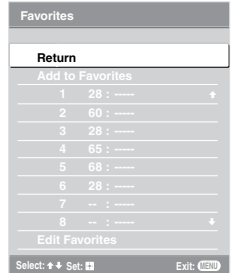


Favorites

The **Favorites** feature lets you select programs from a list of up to 16 favorite channels that you specify.

- 1 Highlight **Favorites** on the **MENU** control panel and press **+**.
- 2 Press **▲/▼** to highlight the desired channel and press **+**. To add the current channel to the list of Favorite Channels, highlight **Add to Favorites** and press **+**.

When the **Favorite Channels** list is full, remove a channel from your list using **Favorite Channels** in the **Setup** settings and try again (see page 36). **Favorite Channels** can be accessed directly from **Edit Favorites**.



TV List

The **TV List** feature lets you select TV programs from a list of channel labels. You can assign a label to the channel (see page 36).



Settings

The **Settings** feature lets you enter the settings screen. Settings and adjustments can be performed from the **Settings** menu. The information on various settings starts from page 25.

Navigating Through Settings

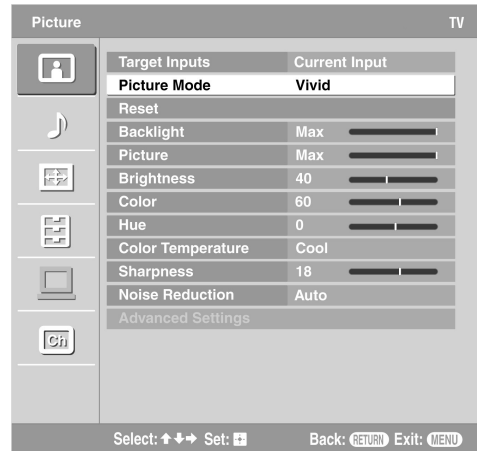
The **Settings** screen provides access to the features:

- 1 Press **MENU**.
- 2 Select
- 3 Highlight the item: Picture, Sound, Screen, Setup, PC Settings, Channel Setup.
- 4 Press **+** to select an option.

To exit **Settings**, press **MENU**.

The options you can adjust vary depending on the situation. Unavailable options are grayed out.

Using the Picture Settings



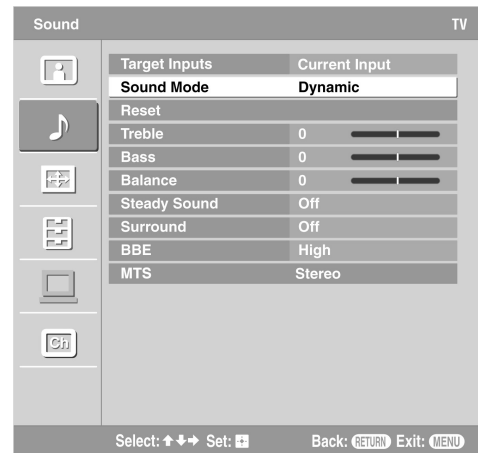
Option	Description	
Target Inputs	Determines whether to apply Picture Settings to current input only, or to all inputs.	
	All Inputs	Settings will be applied to “All Inputs” (ex: TV is showing Video 1. Changes to the picture settings affect TV, Video1 - Video7)
	 “All Inputs” will override any settings set by “Current Input.”	
Picture Mode <i>Customized picture viewing</i>	Current Input	Settings will be applied to only the “Current Input” (ex: TV is showing Video 1. Changes to picture settings affect only Video 1)
	Vivid	Select for enhanced picture contrast and sharpness.
	Standard	Select for standard picture settings. Recommended for home entertainment.
	Custom	Allows you to store your preferred settings.
	 Picture Mode can also be accessed using the TOOLS button on the remote control when in TV mode and External Inputs.	
Reset	Resets the current Picture Mode setting to the default values.	
Backlight	Adjust to brighten or darken the backlight.	
Picture	Adjust to increase or decrease picture contrast.	
Brightness	Adjust to brighten or darken the picture.	
Color	Adjust to increase or decrease color intensity.	
Hue	Adjust to increase or decrease the green tones.	
Color Temperature <i>White adjustment</i>	Cool	Select to give the white colors a bluish tint.
	Neutral	Select to give the white colors a neutral tint.
	Warm 1,2	Select to give the white colors a reddish tint. Available only when Picture Mode is set to Custom.
Sharpness	Adjust to sharpen or soften the picture.	
Noise Reduction	Select to reduce the noise level of connected equipment, and the VHF/UHF input. Select from Auto, High, Medium, Low and Off.	
	 Auto is only available when you are watching TV. It is not available when Target Input is set to All Inputs.	

(Continued)

Using the Menus

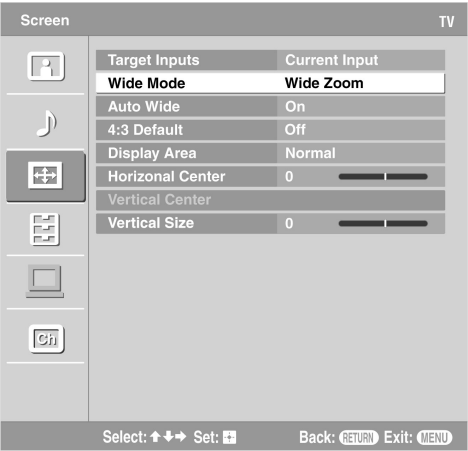
Option	Description	
Advanced Settings Only available in “Custom Picture Mode”	Reset	Resets all the advanced settings to the default settings.
	Black Corrector	Enhances black areas of the picture for stronger contrast.
	Contrast Enhancer	Automatically optimizes the contrast. This setting is especially effective for dark images which increases the vibrancy of the picture.
	Gamma	Adjusts the balance between the light and dark areas of the picture.
	Clear White	Emphasizes white and light colors.
	Live Color	Makes colors more vivid.
	MPEG Noise Reduction	Reduces the mosaic effect in MPEG-compressed video.
	 If the function is set to High, it will reduce the sharpness of the pictures.	

♪ Using the Sound Settings



Option	Description	
Target Inputs	Determines whether to apply Sound Settings to current input only, or to all inputs.	
	All Inputs	Settings will be applied to “All Inputs” (ex: TV is showing Video 1. Changes to the picture settings affect TV, Video1 - Video7)
	“All Inputs” will override any settings set by “Current Input.”	
Sound Mode <i>Customized sound listening</i>	Current Input	Settings will be applied to only the “Current Input” (ex: TV is showing Video 1. Changes to picture settings affect only Video 1)
	Dynamic	Select to enhance treble and bass.
	Standard	Suitable for spoken dialog.
	Custom	Flat setting. Allows you to store your preferred settings.
	Sound Mode can also be accessed using the TOOLS button on the remote control when in TV mode and External Inputs.	
Reset	Resets the current Sound Mode setting to the default values, except MTS.	
Treble	Adjust to increase or decrease higher-pitched sounds.	
Bass	Adjust to increase or decrease lower-pitched sounds.	
Balance	Adjust to emphasize left or right speaker balance.	
Steady Sound	On	Select to stabilize the volume across all programs and commercials.
	Off	Select to turn off Steady Sound.
Surround	TruSurround XT	Select for surround sound (for stereo programs only).
	Simulated Stereo	Adds a surround-like effect to mono programs.
	Off	Select for normal stereo or mono reception.
BBE	Select to give sound more impact by compensating for phase effects in speakers. Select from High, Low, and Off.	
MTS <i>Enjoy stereo, bilingual and mono programs</i>	Stereo	Select for stereo reception when viewing a program broadcast in stereo.
	Auto SAP	Select to automatically switch the TV to second audio programs when a signal is received. If no SAP signal is present, the TV remains in Stereo mode.
	Mono	Select for mono reception. Use to reduce noise during weak stereo broadcasts.

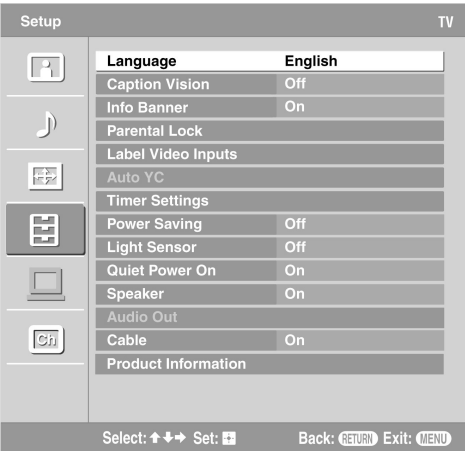
 Using the Screen Settings



Option	Description	
Target Inputs	Determines whether to apply Screen Settings to current input only, or to all inputs.	
	All Inputs	Settings will be applied to “All Inputs” (ex: TV is showing Video 1. Changes to the picture settings affect TV, Video1 - Video7)
	 “All Inputs” will override any settings set by “Current Input.”	
Wide Mode	Current Input	Settings will be applied to only the “Current Input” (ex: TV is showing Video 1. Changes to picture settings affect only Video 1)
	Wide Zoom	Select to fill screen with minimum distortion.
	Normal	Select to display 4:3 picture in original size when the original source is 4:3.
	 Normal is not available when you are watching 720p or 1080i sources.	
	Full	Select to enlarge the picture horizontally to fill the screen when the original source is 4:3 (Standard definition source). When the original source is 16:9 (High definition source), select this mode to display 16:9 picture in original size.
Auto Wide	Zoom	Select to enlarge the original picture without distorting the aspect ratio.
	On	Select to have the screen automatically change to the screen mode that is best for the current program. If frequent screen changes are disturbing to you, select Off.
	Off	Select to turn off the Auto Wide option. Choose a screen mode from the Wide Mode option.

Option	Description
4:3 Default <i>Select the default Screen Mode to use for 4:3 sources</i>	Wide Zoom Select to enlarge the 4:3 picture to fill the 16:9 screen, keeping the original image as much as possible.
	Normal Select to display the 4:3 picture in its original size.
	Off Select to continue using the current Wide Mode setting when the channel or input is changed.
	 If 4:3 Default is set to anything but Off, the Wide Mode setting changes only for the current channel. When you change channels (or inputs), Wide Mode is automatically replaced with the 4:3 Default setting for 4:3 sources. To retain the current Wide Mode setting as channels and inputs are changed, set 4:3 Default to Off.
Display Area	Select Normal to return to the default display area. Select -1 or -2 to enlarge the picture so that the edges are outside the visible portion of the screen.
Horizontal Center	Allows you to move the position of the picture left and right. Press   and press  to choose a correction between Min, -4 to +4 and Max.
	 Horizontal Center feature is useful if TV is connected to game equipment.
Vertical Center	Allows you to move the position of the picture up and down. Available only in Zoom mode. Press   and press  to choose a correction between Min, -4 to +4 and Max.
Vertical Size	Allows you to adjust the vertical size of the picture. (Available only in Wide Zoom and Zoom modes.)
	Press   and press  to choose a correction between Min, -4 to +4 and Max.

 Using the Setup Settings



Option	Description
Language	Select to display all on-screen settings in your language of choice: English, Español, Français.
Caption Vision	Allows you to select from several closed caption modes (for programs that are broadcast with closed captioning).
	Off Caption Vision is turned off.
	CC1, CC2, CC3, CC4 Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.)
	Text1, Text2, Text3, Text4 Displays network/station information presented using either half or the whole screen (if available).
	 Caption Vision can also be accessed using the TOOLS button on the remote control when in TV and External Inputs (with the exception of PC input).
Info Banner	Set to On or Off. When on, displays the program name and the remaining time (if the broadcaster offers this service). Displays for a few seconds when the channel is changed or the DISPLAY button is pressed.

Option	Description	
Parental Lock	The Parental Lock settings allows you to set up the TV to block programs according to their content and rating levels. Use 0-9 on the remote control to enter a four-digit password. The first time you create a password, confirm the password by entering it again.	
	Lock	Off Turn Parental Lock off. No programs are blocked from viewing.
		Child Maximum ratings permitted are: Canada: C, G, TV-Y
		Youth Maximum ratings permitted are: Canada: C8+, PG, 8 ans+, TV-PG
		Young Adult Maximum ratings permitted are: Canada: 14+, 13 ans+, TV-14
		Custom Select to set ratings manually. Canada: See page 33 for details.
	 If you are not familiar with the Parental Guideline rating system, you should select Child, Youth, or Young Adult to help simplify the rating selection. To set more specific ratings, select Custom.	
	Change Password Select to change your password.	
	 You need your password for any future access into the Parental Lock settings. If you lose your password, see "Lost password." on page 38.	
	Select Country	U.S.A. Select to use U.S.A. ratings (see page 34). Canada Select to use Canadian ratings (see page 33).
Label Video Inputs	Allows you to identify A/V equipment you connected to the TV, such as a VCR, DVD, etc. For example, if you have a DVD player connected to the VIDEO 4 jack, you can select the label DVD for the Video 4 input. Then when you press TV/VIDEO to change inputs, the Video Label you assigned to that input appears on screen.	
	1 Press  to highlight the video input (Video 1-7) to which you want to assign a label. Then press  to select the input.	
	2 Press  to highlight one of the displayed labels. Then press  to select the label.	
	You can select from the following labels for each input:	
	Video 1-6	—, RECEIVER, SATELLITE, CABLE BOX, VCR, DVD, DVR, HD, GAME, CAMCORDER, Edit., Skip
	Video 7	—, PC, Edit., Skip
	 Edit: allows you to create a custom five character label.	
	 If you select Skip, your TV skips this input when you press the TV/VIDEO button.	
	 The Skip label is useful for inputs to which no equipment is connected.	

(Continued)

Option	Description	
Auto YC	Both composite video and S Video can be connected to VIDEO 1 and VIDEO 2. Your TV by default will automatically select to receive input signal from the S VIDEO. Use this option when you want to receive the input signal from the composite video. 1 Press TV/VIDEO repeatedly until the desired video input appears. 2 After selecting the Auto YC option, to watch the pictures input from the S VIDEO input jack: Press to highlight On, then press . To watch the pictures input from the VIDEO input jack: Press to highlight Off, then press .	
Timer Settings	Sleep Timer	Set the time in minutes (Off, 15 min, 30 min, 45 min, 60 min, 90 min, or 120 min) that you want the TV to remain on before shutting off automatically.
	Timer	You can use the Timer to turn the TV on, turn it off, or tune it to a specific channel at a scheduled time. Timer feature will not be available until you set the Current Time. 1 Press to highlight one of the following options, then press . Set: Select to set the timer by Day, Time, Duration, Channel and Volume Setup. Off: Select to turn off the timer. (Your previous settings are saved.) 2 If you selected Set in step 1, press to set the day(s), hour, minute, AM/PM, duration, channel number (VHF/UHF or CATV), and volume. 3 Press MENU to exit Settings.
	To return to the Timer Settings after programming the Timer or Current Time, press . Timer will be set to Off when: - Auto Program is executed. - the AC power cord is disconnected and then reconnected to turn the TV on and the Current Time is displayed as --:-- --.	
	Current Time	Select to set the current time (day, hour, minute, and AM/PM). 1 Press to select Current Time. 2 Press to set the current time (day, hour, minute, and AM/PM). 3 Press MENU to exit Settings.
Power Saving	Select to reduce the power consumption by adjusting the backlight brightness. This also enhances the black level. Select from Off, Low, High and Picture Off.	
Light Sensor	Select On to enable the automatic picture (screen) brightness control. The light sensor measures the room brightness which allows the TV to automatically adjust the backlight brightness based on the picture settings and the ambient room light conditions. Be sure not to put anything around the sensor, as its function may be affected. In low light the range of the backlight control is reduced when Light Sensor is set to On.	
Quiet Power On	Select to have the TV volume start at the minimum volume and gradually change to the set level when you turn it on.	

Option	Description	
Speaker	On	Select to turn on the TV speakers.
	Off	Select to turn off the TV speakers and listen to the TV's sound only through your external audio receiver and speakers.
Audio Out <i>Easy control of volume adjustments</i>	Variable	When Speaker is set to Off, the audio output from your audio system can be controlled by the TV's remote control.
	Fixed	When Speaker is set to Off, the audio output of the TV is fixed. Use your audio receiver's remote control to adjust the volume (and other audio settings) through your audio system.
Cable	On	Select if you are receiving cable channels via Cable TV provider.
	Off	Select if you are using an antenna.
	 You should run Auto Program after changing the Cable setting.	
Product Information	Select to display the equipment information of your TV.	

Canadian custom rating options

The Custom Rating setting includes the following options.

Option	Description	
English Rating	C	All children.
	C8+	Children 8 years and older.
	G	General programming.
	PG	Parental guidance.
	14+	Viewers 14 and older.
	18+	Adult programming.
French Rating	G	General programming.
	8 ans+	Not recommended for young children.
	13 ans+	Not recommended for ages under 13.
	16 ans+	Not recommended for ages under 16.
	18 ans+	Programming restricted to adults.
U.S.A Rating	See "US Models" on page 34 for details.	

(Continued)

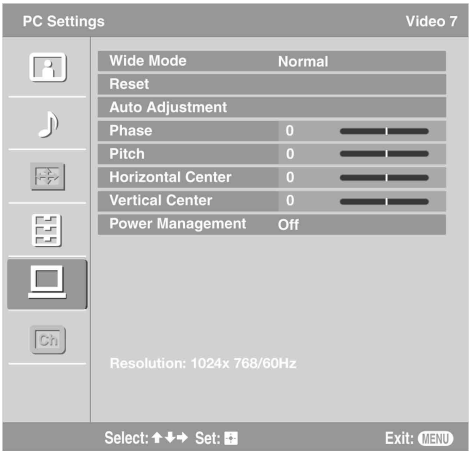
This model is for Canada only, the following US custom rating options are provided for reference.

Option	Description	
Movie Rating	G	All children and general audience.
	PG	Parental guidance suggested.
	PG-13	Parental guidance for children under 13.
	R	Restricted viewing, parental guidance is suggested for children under 17.
	NC-17 and X	No one 17 or under allowed.
TV Rating	Age-Based Ratings	
Block programs by their rating, content or both	TV-Y	All children.
	TV-Y7	Directed to children age 7 and older.
	TV-G	General audience.
	TV-PG	Parental guidance suggested.
	TV-14	Parents strongly cautioned.
	TV-MA	Mature audience only.
	Content-Based Ratings	
	FV	Fantasy violence.
	D	Suggestive dialogue.
	L	Strong language.
	S	Sexual situations.
	V	Violence.
	 To ensure maximum blocking capability, set the Age-Based Ratings.	
Unrated	Allow	Allows programs and movies that are broadcast without a rating.
	Block	Blocks all programs and movies that are broadcast without a rating.
Block programs or movies that are broadcast without a rating	 If you block unrated TV programs, be aware that the following types of programs may be blocked: programs broadcast from another country, emergency broadcasts, political programs, sports, news, public service announcements, religious programs and weather.	

Viewing Blocked Programs

You can view blocked programs by entering the password. Press ENT when tuned to a blocked program, then enter the password. This temporarily turns the parental control feature off. To reactivate the Parental Lock settings, turn off the TV. When the TV is turned on again, your Parental Lock settings are reactivated.

Using the PC Settings



Using the Menus

Option	Description	
Wide Mode	Normal	Select to display in the original resolution.
	Full1	Select to enlarge the picture to fill the display area, keeping its original aspect ratio.
	Full2	Select to enlarge the picture to fill the display area.
Reset	Resets the current setting to the default values, except Wide Mode and Power Management .	
Auto Adjustment	Select to automatically adjust the display position and phase of the picture when the TV receives an input signal from the connected PC. Note that Auto Adjustment may not work well with certain input signals. In such cases, manually adjust the options below.	
	 Auto Adjustment for PC can also be set using the TOOLS button on the remote control.	
Phase	Adjust after Pitch to fine tune overall sharpness.	
Pitch	Adjust uneven sharpness on screen.	
	 For the PC Input Signal Reference Chart, see page 41.	
Horizontal Center	Allows you to move the position of the picture left and right. Press ←/→ and press ⊕ to choose a correction between Min, -49 to +49 and Max.	
Vertical Center	Allows you to move the position of the picture up and down. Press ▲/▼ and press ⊕ to choose a correction between Min, -49 to +49 and Max.	
Power Management	On	Select to automatically switch to the power saving mode when there is no signal input for 30 seconds.
	Off	Select to turn off Power Management .
	 Power Management is not VESA-compliant.	

Ch *Using the Channel Setup Settings*



Option	Description
Favorite Channels	Lets you set up a list of up to 16 of your favorite channels. 1 Press ▲/▼ to highlight a Favorite Channel number (1-16) which you want to make your Favorite Channel, then press (+) to select it. 2 Press ▲/▼ to scroll through the channels until you find the channel that you would like to add and then press (+) to select it. To add other Favorite Channel numbers, repeat steps 1-2. To select Favorite Channel numbers that you specified, see page 24. Favorite Channels can also be set using the TOOLS button on the remote control.
Auto Program	Automatically sets up the channel list on the TV for all receivable channels. 1 Select Auto Program. 2 Select OK to start Auto Program. When Auto Program is done, the Show/Hide Channels screen will appear. (See below)
Show/Hide Channels	Allows you to show or hide channels that appear when you use the CH +/- buttons. 1 Press ▲/▼ to scroll through the channels until you find the channel you want to show or hide. Then press (+) to select it. 2 Press ▲/▼ to determine if the channel will be shown or hidden. To show or hide more channels, repeat steps 1-2. Channels that you set to be hidden can be accessed only with the 0-9 buttons.
Label Channels	Allows you to assign labels (such as station call letters) to channel numbers. 1 Press ▲/▼ to scroll through the channel numbers. Then press (+) to select the channel number that you want to assign a label. 2 Press ▲/▼ to scroll through the label characters (A-Z, 0-9, etc.). Press ➡ to move to the next character. Repeat to add up to 5 characters to the label. Press ➡ to highlight OK and press (+) to set. To assign labels to more channels, repeat steps 1-2.

Troubleshooting

If you have additional questions, service needs, or required technical assistance related to the use of your Sony TV, please visit our website or call one of the following numbers:

<http://www.sony.com/TVsupport>

1-877-899-SONY(7669) in Canada

Problem	Possible Remedies
No picture.	
No picture.	☐ Check Power Saving settings (page 32).
Cannot receive any channels.	☐ Make sure the power cord is connected securely.
	☐ Turn on the power of the TV.
	☐ Check antenna/cable connections.
TV is locked to one channel.	☐ Perform Auto Program to add receivable channels that are not presently in the TV's memory (pages 36).
Cannot receive or select channels.	☐ Perform Auto Program to add receivable channels that are not presently in the TV's memory (pages 36).
	☐ To receive or select cable channels, make sure that Cable in the Setup settings is set to On (page 33). To receive or select UHF channels over an antenna, make sure Cable is set to Off .
The TV turns off automatically.	☐ Check if the Sleep Timer is activated, or confirm the Duration setting of Timer . (page 32).
	☐ Check Power Management in the PC Settings . (page 35)
No picture from some video sources.	☐ Check the connection between the optional video equipment and the TV.
	☐ Press TV/VIDEO on the remote control (page 19).
	☐ If you connect video equipment to the S VIDEO input of the TV, set Auto YC to On in the Setup settings (page 32).
	☐ Press MENU on the remote control. Select your desired input from the External Inputs list.
Poor picture.	
Double images or ghosts.	☐ Check antenna/cable connections.
	☐ Check the antenna location and direction.
Only snow and noise appear on the screen.	☐ Check if the antenna is broken or bent.
	☐ Check if the antenna has reached the end of its serviceable life. (3-5 years in normal use, 1-2 years at the seaside.)
Dotted lines or stripes.	☐ Keep the TV away from noise sources such as cars, motorcycles, or hair-dryers.
	☐ If using 300 ohm twin lead, move the excess lead away from the TV or try using 75 ohm coaxial cable instead.
No color/Dark picture/Color is not correct/The picture is too bright.	☐ Press PICTURE to select the desired picture mode (page 19).
	☐ Adjust the Picture Mode options in the Picture settings (page 25).
	☐ If you set the Power Saving mode to Low or High , it will enhance the black level.
Noisy picture.	☐ Make sure that the antenna is connected using the supplied 75-ohm coaxial cable.
	☐ Keep the antenna cable away from other connecting cords.
	☐ To avoid TV interference, make sure to use an undamaged antenna cable.

(Continued)

Other Information

Problem	Possible Remedies
No sound/Noisy sound	
Good picture, no sound.	☐ Check the volume control. ☐ Press MUTING or VOL + so that “Muting” disappears from the screen (page 19). ☐ Disconnect your headphones. ☐ Set Speaker to On in the Setup settings (page 33). If it is set to Off, sound is not output from the TV’s speakers regardless of the TV’s volume control.
Audio noise.	☐ Make sure that the antenna is connected using the supplied 75-ohm coaxial cable. ☐ Keep the antenna cable away from other connecting cords. ☐ To avoid TV interference, make sure to use an undamaged antenna cable.
Wide Mode changes automatically.	☐ The current Wide Mode setting is automatically replaced with the 4:3 Default setting when you change the channel or video input, if 4:3 Default in the Screen settings is set to other than Off. If you want to lock in the Wide Mode selected with the WIDE button, set 4:3 Default to Off in the Screen settings (page 29). ☐ Check the Auto Wide option in the Screen settings (page 28).
“Black box” on screen.	☐ You have selected a text option in the Setup setting and no text is available. (See page 30 to reset Setup selections.) To turn off this feature, set the Caption Vision option to Off. If you were trying to select closed captioning, select CC1 instead of Text1-4.
Black bands appear at the top and bottom of the screen.	☐ Some wide screen programs are filmed in aspect ratios that are greater than 16:9 (this is especially common with theatrical releases). Your TV will show these programs with black bands at the top and bottom of the screen. For more details, check the documentation that came with your DVD (or contact your program provider).
Certain programs on DVD or other digital sources display a loss of detail, especially during fast-motion or dark scenes.	☐ The compression used by certain digital broadcasts and DVDs may cause your TV’s screen to display less detail than usual, or cause artifacts (small blocks or dots, pixelations) to appear on your screen. This is due to your TV’s large screen and ability to show very fine detail, and is normal for certain digitally recorded programs.
Remote control does not operate.	☐ Check the polarity of the batteries or replace the batteries. ☐ Point the remote control at the remote control sensor of the TV. ☐ Florescent lamps can interfere with your remote control operation; try turning off the florescent lamps. ☐ Keep the remote control sensor area clear from obstacles.
Lost password.	☐ Select the Parental Lock settings on the settings screen, then enter the following master password: 4357. The master password clears your previous password and allows you to enter a new password (page 31).
How to reset the TV to factory settings.	☐ Turn on the TV. While holding down the ▲ button on the remote control, press the POWER button on the TV. (The TV will turn itself off, then back on again.) Release the ▲ button. WARNING: The Reset will clear all of your customized settings including Parental Lock setting.

Preparation for Wall Mounting the KLV-23S200A, KLV-26S200A and KLV-32S200A

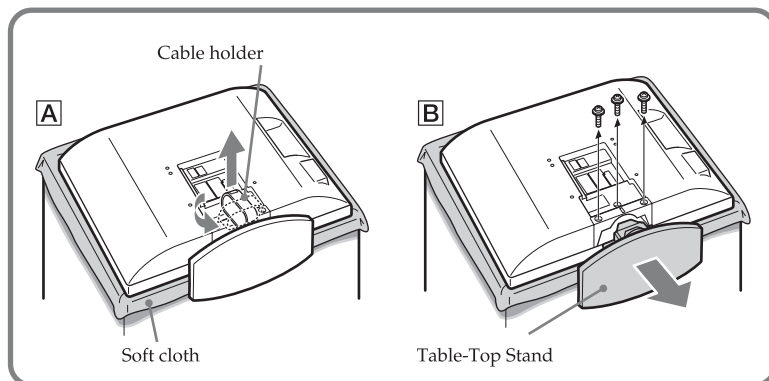
This TV can be installed on a wall by using a wall-mount bracket (sold separately). Before mounting the TV on a wall, the Table-Top Stand must be removed from the TV.

 Do not remove the Table-Top Stand for any reason other than to wall-mount the TV.

Follow the simple steps below to remove the Table-Top Stand:

- 1** Disconnect all the cables from the TV.
- 2** Cover a level and stable surface with a thick and soft cloth.
- 3** Gently lay the TV, face down, onto the cloth. Make sure the Table-Top Stand is hanging over the edge.
- 4** Rotate the cable holder 90 degrees, and pull it out completely. [See illustration A]
- 5** Remove the screws and detach the Table-Top Stand from the TV. [See illustration B] Be sure to hold the Table-Top Stand firmly while removing the last screw.
- 6** Do not remove any other screws from the TV.

For bracket installation, refer to the instruction guide provided by the Wall-Mount Bracket model for your TV. Sufficient expertise is required in installing this TV, especially to determine the strength of the wall for withstanding the TV's weight. **For product protection and safety reasons, Sony strongly recommends that you use the Wall-Mount Bracket model designed for your TV and the wall-mounting of your TV should be performed by Sony dealers or licensed contractors.**



 Be sure to store the removed screws and Table-Top Stand in a safe place until you are ready to reattach the Table-Top Stand. Keep the screws away from small children.

**Sony Wall-Mount
Bracket Model
SU-WL31**
(KLV-23S200A/
KLV-26S200A/
KLV-32S200A)

Preparation for Wall Mounting the KLV-40S200A

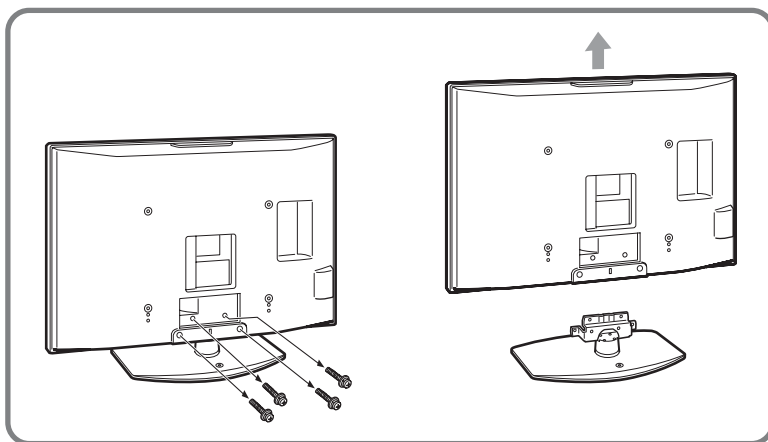
This TV can be installed on a wall by using a wall-mount bracket (sold separately). Before mounting the TV on a wall, the Table-Top Stand must be removed from the TV.

 Do not remove the Table-Top Stand for any reason other than to wall-mount the TV.

Follow the simple steps below to remove the Table-Top Stand:

- 1** Disconnect all the cables from the TV.
- 2** Start removing the screws from the ones on top. (See illustration below) Do not remove any other screws from the TV.
- 3** When screws are removed, lift the TV out. Make sure that you carry out this task with two people. Do not attempt to lift the TV by your self.

For bracket installation, refer to the instruction guide provided by the Wall-Mount Bracket model for your TV. Sufficient expertise is required in installing this TV, especially to determine the strength of the wall for withstanding the TV's weight. **For product protection and safety reasons, Sony strongly recommends that you use the Wall-Mount Bracket model designed for your TV and the wall-mounting of your TV should be performed by Sony dealers or licensed contractors.**



 Be sure to store the removed screws and Table-Top Stand in a safe place until you are ready to reattach the Table-Top Stand. Keep the screws away from small children.

PC Input Signal Reference Chart

Resolution				Horizontal frequency (kHz)	Vertical frequency (Hz)	Standard
Signals	Horizontal (Pixel)	×	Vertical (Line)			
VGA	640	×	480	31.5	60	VGA
	640	×	480	37.5	75	VESA
	720	×	400	31.5	70	VGA-T
SVGA	800	×	600	37.9	60	VESA Guidelines
	800	×	600	46.9	75	VESA
XGA	1024	×	768	48.4	60	VESA Guidelines
	1024	×	768	56.5	70	VESA
	1024	×	768	60.0	75	VESA
WXGA	1280	×	768	47.4	60	VESA
	1280	×	768	47.8	60	VESA
	1360	×	768	47.7	60	VESA

-  This TV's PC Input does not support Sync on Green or Composite Sync.
-  This TV's PC Input does not support interlaced signals.
-  This TV's PC Input supports signals in the above chart with a 60Hz vertical frequency.
-  For the best picture quality, it is recommended to use signals with a 60Hz vertical frequency from a personal computer. In plug and play, signals with 60Hz vertical frequency will be selected automatically.

Specifications

For All Models

Television system:
NTSC American TV standard

Channel coverage:
Terrestrial 2-69
Cable 1-125

Antenna: 75-ohm external terminal for VHF/UHF

Panel System:
LCD (Liquid Crystal Display) Panel

Display resolution (horizontal × vertical):
1,366 dots × 768 lines

VIDEO IN 1/2/3:
S VIDEO (4-pin mini DIN) (VIDEO 1/2 only):
Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative
C: 0.286 Vp-p (Burst signal), 75 ohms
VIDEO: 1 Vp-p, 75 ohms unbalanced, sync negative
AUDIO: 500 mVrms (100% modulation)
Impedance: 47 kilohms

HD/DVD IN 4/5:
YPbPr (Component Video):
Y: 1.0 Vp-p, 75 ohms unbalanced,
sync negative
PB: 0.7 Vp-p, 75 ohms
PR: 0.7 Vp-p, 75 ohms
Signal format: 480i, 480p, 720p, 1080i
AUDIO: 500 mVrms (100% modulation)
Impedance: 47 kilohms

HDMI IN 6:
HDMI: Video: 480i, 480p, 720p, 1080i
Audio: Two channel linear PCM 32, 44.1 and
48 kHz, 16, 20 and 24 bits
AUDIO: 500 mVrms (100% modulation)
Impedance: 47 kilohms

AUDIO OUT:
500 mVrms (100% modulation)
More than 1 Vrms at the maximum volume setting (Variable)
More than 500 mVrms (Fixed)

PC IN 7:
D-sub 15-pin, analog RGB, 0.7 Vp-p, 75 ohms, positive
See the PC Input Signal Reference Chart on page 41

PC AUDIO INPUT:
Stereo mini jack, 0.5 Vrms, 1 kilohm

Headphones:
Stereo mini jack
Impedance: 16 ohms

Power Requirement:
120 V-240 V AC, 50/60 Hz

Supplied accessories:
Remote control RM-YA006 (1)
Size AA batteries (2)
75-ohm coaxial cable (1)
AC power cord (1)
HD15-HD15 cable (1)
Support belt (1), securing screw (1) and wood screw (1)
Cable holder (1)
Operating Instructions (1)
Quick Setup Guide (1)
Warranty Card (1)

Optional accessories:
Headphones plug adapter
Connecting cables
Wall-Mount Bracket: SU-PW2 (KLV-40S200A)
SU-WL31 (KLV-23S200A/
KLV-26S200A/KLV-32S200A)
SU-WL51 (KLV-40S200A)

 Optional accessories availability depends on its stock.

By Model	KLV-40S200A	KLV-32S200A	KLV-26S200A	KLV-23S200A
Screen size (in inches)	40	32	26	23
Speaker/Full range (2) (in mm) Speaker output	55 × 150 10 + 10 W	42 × 150 10 + 10 W	42 × 150 10 + 10 W	40 × 100 5 + 5 W
Power consumption (in use) (in standby)	195 W -----	145 W -----	115 W -----	90 W -----
All models less than 0.1 W				
Dimensions with stand (in mm) without stand (in mm)	988 × 716 × 334 988 × 664 × 103	792 × 593 × 219 792 × 546 × 99	658 × 516 × 219 658 × 470 × 94	566 × 447 × 209 566 × 410 × 90
Mass with stand (in kg.) without stand (in kg.)	27.0 21.0	17.0 15.0	13.0 11.0	10.2 8.8

Design and specifications are subject to change without notice.

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For Your Convenience

Please contact Sony directly if you:

- Have questions on the use of your television after reading your manual
- Experience difficulty operating your television

Contact Sony Customer Support at:

<http://www.sony.com/tvsupport>

or to speak with a support representative:

Canada

1-877-899-SONY (7669)

8:00 AM - 6:00 PM (Eastern)

8:00 AM - 5:00 PM (Western)

Sony will work to resolve your questions more quickly than your retailer or place of purchase.

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